

certain of the workmen placed some bichromate of potassa in a barrel of cider, as a joke. The cider was rendered of a dark colour; but, notwithstanding, other of the workmen drank the cider, and were all affected with severe colic and diarrhoea.

In a second account sent to the reporters by M. Clouet, the facts of his previous statements were confirmed, and certain further details were offered, which are of interest. Thus it was shown that both sexes were equally influenced, and at all ages; and that the affection of the septum of the nostril usually made its appearance within a week after exposure. The disease of the septum was very easily brought about in those workman who, having stained their fingers with the chromate, put them into the nostril. M. Clouet also observed in every case, that in those men in whom the septum was entirely removed, nasal catarrh was unknown.

In respect to treatment, various observations have been carried out. As a preventive of the nasal disease, the use of snuff seems very effectual. In some cases the workmen apply a wet sponge before the nostrils when they are exposed to the vapour; and the plan seems to be advantageous. When the skin is abraded, and the chromate has produced ulceration, it is the best treatment to wash thoroughly with a feeble alkaline water; then, if inflammatory action follows, to poultice, and afterwards to apply freely subacetate of lead in solution.—*Brit. and For. Med.-Chirur. Rev.*, Oct. 1863, from *Annales d'Hygiène Publique*, July, 1863.

49. *Poisoning by Cyanide of Potassium. Dangers to Photographers.*—Dr. DAVANNE directs attention to the dangers to which those who are engaged in the art of photography are exposed. They use constantly, he says, two of the most active poisons—namely, cyanide of potassium and bichloride of mercury. Their hands are constantly in contact with strong solutions of these poisons; and often, in spite of repeated warnings, they run absurd risks. The author gives an account of a case in which a gentleman, who had stained his hand with nitrate of silver, endeavoured to remove the stain by rubbing over it cyanide of potassium freely. In the act, he slid under the nail of one of his fingers a small portion of the cyanide salt. At first he did not notice this, but in a little time he felt a sharp pain in the part, followed, after a few minutes, by an intense vertigo, so that all objects appeared to be moving around him. To relieve him promptly, he conceived the unfortunate idea of employing vinegar; the cyanide was quickly decomposed, and hydrocyanic acid was produced absolutely. The vertigo now increased accompanied by shiverings, pallor of the face, loss of sight, and great exhaustion. The power of speech was lost, but the intelligence was preserved. The extremities were cold, and as the sight returned there was double vision. The symptoms did not pass away for ten hours.

The treatment adopted consisted of cold and friction on the spinal column, inhalation of ammonia vapour, and the administration of strong infusion of black coffee.—*Ibid.*, from *Canstatt's Jahresh.*, 1862.

50. *Effects of Emerald Green on Paper-Stainers.*—The commissioners appointed to inquire into the health of children in manufactories have published some valuable remarks on the effects of arsenical preparations on the paper-stainers. The commissioners state that the colouring matter consists sometimes of emerald green, in greater or less proportions; and when it does so, it becomes, under certain circumstances, a source of danger. The evidence of Dr. Letheby on this subject is particularly deserving of notice, as showing not only the danger to the workpeople, but to persons whose rooms are hung with these arsenical papers, and to those who wear artificial flowers similarly coloured. Dr. Letheby relates a fatal case of a child who was thus poisoned from playing in a room in a gentleman's house which was covered with this green paper. He also states, as showing the amount of arsenical matter, that he has found about a grain of pigment for every square inch of the green leaves of these flowers; adding, "I have seen a wreath with enough arsenic in it to poison twenty people."

The commissioners add—The emerald green is dangerous in this trade.

1st. If it is badly manufactured. Mr. Cook states, "Our emerald green is

peculiar. It comes from one particular place in London. It is much finer and softer to the touch—less granular, that is—than the ordinary Scheele's green, of which this is a specimen. It does occasionally vary in quality; but as a general rule, if ever we have to get some from anywhere else, our men know by the strong smell directly they open the cask that it 'won't work,' as they say—that is, that it will be loose and fly;" and Mr. Cook adds that brushing emerald greens by a machine, "if it were at all loose, must be very bad."

Mr. Smith, of Messrs. Heywoods', states that "the arsenic green is better than it used to be;" and other witnesses also are of the same opinion, that if it is well manufactured "no bad effects arise from it." It is the cheapest kind that is the most injurious. "The commoner the colour—the cheaper, that is—the worse for use. It is not properly prepared; the arsenic is not killed in it."

2d. If it is imperfectly mixed with the size. It appears that this is more likely to be the case with machine-made paper than in block-printing, inasmuch as the colour for block-printing is more "set with size," being worked "almost in a jelly;" whereas "the cylinder in the machine must have a more or less liquid colour, or it would not revolve; and so there cannot be enough size to bind in the one as in the other."

3d. If it is worked at continuously, especially with machine-made paper; the friction in rolling it up when dry, or in brushing it, causes the dust to come off.

4th. If cleanliness be not observed. J. Nail says: "The emerald green is worse, but cleanly persons are not affected by it. The boys, many of them, will not wash; but eat their meals with dirty hands, covered with paint and mess. I have seen them eat their dinner with hands smothered in lead."

That these sources of danger, being well known in the trade, are watched, and, to a considerable extent, guarded against, is shown, not only from the above evidence, but from the facts related by several witnesses connected with the large works in the North; where the printing is chiefly by machinery, and where, consequently, the greatest danger arises from the emerald green. J. Boden, at Messrs. Heywoods' works, states that he "has never known any permanent injury from working the emerald green."

The case of a boy at Messrs. Potter's who is said to have died from the effects of emerald green, G. Aspden, is exceptional; and is, indeed, attributed by two of the witnesses, partly to detaching the chalk dust, partly to "the long hours and close confinement."—*Brit. and For. Med.-Chir. Rev.*, Oct. 1863, from *Report of Children's Employment Commission, Government Paper*, 1863.

51. *Toxicological Experiments with Turpentine*.—A series of experiments have been conducted by Dr. L. W. LIEBSCHE, to determine the effects of turpentine on animals. Rectified turpentine was placed in a wooden chamber, and after the vapour was freely diffused through the chamber, the animals were placed in it, so much air being admitted that a light placed in the chamber would burn quietly and strongly. The following are the conclusions drawn by the experimentalist: Air, when charged strongly with turpentine vapour, was injurious to all the animals subjected to it. The symptoms excited were uneasiness, dimness, tottering, reeling, want of power in the extremities, especially the hinder ones; convulsions, partial or general; difficult respiration, and great rapidity in the action of the heart. Death was produced not merely by asphyxia, but by paralysis of the nervous system. In two animals, a cat and a rabbit, death followed in the course of half an hour; while other animals, exposed to the same vapour in the chamber, recovered on being brought into the air. At the post-mortem, conducted within an hour after death of the two animals, the bodies were rigid, the vessels of the brain were found full of dark fluid blood. In the cat, the pupils were enormously dilated; in the rabbit, shortly before death, they were much contracted. The lungs were of a deep red colour, with ecchymosed spots; the right side of the heart was relaxed, and filled with fluid blood, which in the rabbit was dark; the left breast was contracted and empty. The kidneys, liver, and spleen were full of blood; the bladder was distended, but no violet smell was perceptible in the urine. The author infers from these experiments that turpentine vapour is not so dangerous to inhale as has generally been supposed, and that it is not necessary,